UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,383	10/17/2003	Ie-Hong Lin	020292	2247

23696 7590 01/30/2007
QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER	
MILLER, BRANDON J	
ART UNIT	**PAPER NUMBER**
2617	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/30/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/30/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
t_ssadik@qualcomm.com

Office Action Summary	Application No. 10/688,383	Applicant(s) LIN, IE-HONG	
	Examiner Brandon J. Miller	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Remarks

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 5-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy, Jr. et al. (6,920,329 B2) in view of Bark et al. (US 6,445,917 B1).

Regarding claim 1 Kennedy, Jr. teaches a method for identifying transmitters in a wireless communication system (see col. 4, lines 58-61). Kennedy, Jr. teaches obtaining a plurality of received signals from a plurality of transmitters (see col. 3, lines 37-41). Kennedy, Jr. teaches determining a transmitter for each received signal (see col. 4, lines 54-61 and FIG. 2). Kennedy, Jr. teaches determining a list of candidate transmitters for the received signal (see col. 4, lines 54-56, base stations in the vicinity of the mobile terminal relates to list of candidate transmitters). Kennedy, Jr. teaches obtaining predicted power for each candidate transmitter in the list (see col. 4, lines 54-55, estimates of received signal strength relates to predicted power for each candidate transmitter). Kennedy, Jr. teaches identifying a transmitter for a received signal based on signal strength predictions for the candidate transmitters (see col. 4, lines 58-61). Kennedy, Jr. does not specifically teach identifying a transmitter based on predicted powers for the transmitters and measured power for the received signal. Bark teaches identifying a base station in a cell based on a predetermined condition and measured power for a received signal

(see col. 6, lines 58-66 and col. 7, lines 2-4, the predetermined condition relates to predicted power). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include identifying a transmitter based on predicted powers and measured power for the received signal because identifying the transmitter in Kennedy, Jr. using the received signal strength measurements in Bark (see Bark col. 6, lines 58-62) in addition to the estimated signal strength for the candidate transmitters in Kennedy, Jr. (see Kennedy, Jr. col. 4, lines 54-55) would allow for improved accuracy in location determining systems.

Regarding claim 2 Kennedy, Jr. and Bark teach a device as recited in claim 1 except for comparing the predicted power for each candidate transmitter against the measured power for the received signal, and wherein the identified transmitter for the received signal is the candidate transmitter with predicted power closest to the measured power. Kennedy, Jr. does teach identified transmitters for received signals that are the transmitters with the predicted power closest to a sufficient strength level (see col. 4, lines 58-61). Bark does teach evaluating a measured parameter with a predetermined event or condition (see col. 6, lines 62-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include comparing the predicted power for each candidate transmitter against the measured power for the received signal, and wherein the identified transmitter for the received signal is the candidate transmitter with predicted power closest to the measured power because identifying the transmitter in Kennedy, Jr. using the received signal strength measurements in Bark (see Bark col. 6, lines 58-62) in addition to the estimated signal strength

for the candidate transmitters in Kennedy, Jr. (see Kennedy, Jr. col. 4, lines 54-55) would allow for improved accuracy in location determining systems.

Regarding claim 3 Kennedy, Jr. teaches determining a coverage zone to use for the received signal, and wherein the predicted power for each candidate transmitter is obtained based on the coverage zone (see col. 4, lines 32-42).

Regarding claim 5 Kennedy, Jr. teaches wherein the coverage zone is derived based on one or more coverage areas of one or more identified transmitters (see col. 4, lines 27-42).

Regarding claim 6 Kennedy, Jr. teaches wherein the predicted power for each candidate transmitter is determined based on a path loss prediction model (see col. 4, lines 24-31).

Regarding claim 7 Kennedy, Jr. teaches wherein the path loss prediction model is based on Okumura-Hata model (see col. 4, lines 3-8).

Regarding claim 8 Kennedy, Jr. teaches wherein the predicted power for each transmitter is determined based on field data (see col. 4, lines 32-38).

Regarding claim 9 Bark teaches wherein the wireless communication system is a CDMA system (see col. 50-53).

Regarding claim 10 Kennedy, Jr. and Bark teach a device as recited in claim 10 except for wherein the list of candidate transmitters for each received signal comprises a list of base station transceivers (BTSs) with same PN offset. Kennedy, Jr. does teach a list of candidate transmitters that comprise base stations (see col. 4, lines 54-57). Bark does teach base stations with PN offset (see col. 1, lines 55-58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a list of base

station transceivers (BTSs) with same PN offset because this would allow for improved accuracy in location determining systems.

Regarding claim 11 Kennedy, Jr. and Bark teach a device as recited in claim 1 except for obtaining predicted propagation delay for each candidate transmitter in the list, and wherein the transmitter for the received signal is further identified based on predicted propagation delays for the candidate transmitter and measured propagation delay for the received signal. Kennedy, Jr. does teach obtaining predicted propagation delay for candidate transmitters, wherein the transmitter is further identified based on predicted propagation delays for the candidate transmitter (see col. 4, lines 27-31 & 54-61). Bark teaches evaluating a predetermined condition and measured power for received signals from current and neighboring base stations (see col. 6, lines 58-66 and col. 7, lines 2-4, the predetermined condition relates to predicted power). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include obtaining predicted propagation delay for each candidate transmitter in the list, and wherein the transmitter for the received signal is further identified based on predicted propagation delays for the candidate transmitter and measured propagation delay for the received signal because this would allow for improved accuracy in location determining systems.

Regarding claim 12 Kennedy, Jr. and Bark teach a device as recited in claim 11 except for determining a power delta for each candidate transmitter as a difference between the predicted power for the candidate transmitter and the measured power of the received signal, determining a propagation delay delta for each candidate transmitter as a difference between the predicted propagation delay for the candidate transmitter and the measured propagation delay for

the received signal, and obtaining a weighted sum of the power delta and the propagation delay delta for each candidate transmitter, and wherein the identified transmitter for the received signal is the candidate transmitter with a smallest weighted sum. Kennedy, Jr. does teach determining a propagation delay for each candidate transmitter (see col. 4, lines 27-31 & 54-61). Kennedy, Jr. does teach obtaining a weighted sum of the propagation delay for each candidate transmitter, and identifying a candidate transmitter for a received signal (see col. 4, lines 55-61 and col. 6, lines 13-20). Bark does teach evaluating a measured parameter with a predetermined event or condition (see col. 6, lines 62-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include determining a power delta for each candidate transmitter as a difference between the predicted power for the candidate transmitter and the measured power of the received signal, determining a propagation delay delta for each candidate transmitter as a difference between the predicted propagation delay for the candidate transmitter and the measured propagation delay for the received signal, and obtaining a weighted sum of the power delta and the propagation delay delta for each candidate transmitter, and wherein the identified transmitter for the received signal is the candidate transmitter with a smallest weighted sum because this would allow for improved accuracy in location determining systems.

Regarding claim 13 Kennedy, Jr. teaches a method for determining transmitters in a wireless communication system (see col. 4, lines 58-61). Kennedy, Jr. teaches obtaining a plurality of received signals from a plurality of transmitters (see col. 3, lines 37-41). Kennedy, Jr. teaches determining a transmitter for each received signal (see col. 4, lines 54-61 and FIG. 2). Kennedy, Jr. teaches determining a list of candidate transmitters for the received signal (see col.

4, lines 54-56, base stations in the vicinity of the mobile terminal relates to list of candidate transmitters). Kennedy, Jr. teaches obtaining predicted power for each candidate transmitter in the list (see col. 4, lines 54-55, estimates of received signal strength relates to predicted power for each candidate transmitter). Kennedy, Jr. teaches obtaining predicted power for identified transmitters (see col. 4, lines 58-61). Kennedy, Jr. teaches determining a transmitter for a received signal based on signal strength predictions for the candidate transmitter and identified transmitters (see col. 4, lines 58-61). Kennedy, Jr. does not specifically teach identifying a transmitter based on predicted powers for the transmitters and measured power for the received signals. Bark teaches identifying a base station in a cell based on a predetermined condition and measured power for received signals from current and neighboring base stations (see col. 6, lines 58-66 and col. 7, lines 2-4, the predetermined condition relates to predicted power). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include identifying a transmitter based on predicted powers and measured power for the received signal because identifying the transmitter in Kennedy, Jr. using the received signal strength measurements in Bark (see Bark col. 6, lines 58-62) in addition to the estimated signal strength for the candidate transmitters in Kennedy, Jr. (see Kennedy, Jr. col. 4, lines 54-55) would allow for improved accuracy in location determining systems.

Regarding claim 14 Kennedy, Jr. and Bark teach a device as recited in claim 13 except for comparing a relative predicted power for each candidate transmitter against a relative measured power for the received signal, the relative predicted power being a difference between the predicted the predicted power for the candidate transmitter and the predicted power for the identified transmitter, the relative measured power being a difference between the measured

power of the received signal and the measured power for the identified transmitter, and wherein the identified transmitter for the received signal is the candidate transmitter with predicted power closest to the measured power. Kennedy, Jr. does teach identified transmitters for received signals that are the transmitters with the predicted power closest to a sufficient strength level (see col. 4, lines 58-61). Bark does teach evaluating a measured parameter with a predetermined event or condition (see col. 6, lines 62-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include comparing a relative predicted power for each candidate transmitter against a relative measured power for the received signal, the relative predicted power being a difference between the predicted the predicted power for the candidate transmitter and the predicted power for the identified transmitter, the relative measured power being a difference between the measured power of the received signal and the measured power for the identified transmitter, and wherein the identified transmitter for the received signal is the candidate transmitter with predicted power closest to the measured power because identifying the transmitter in Kennedy, Jr. using the received signal strength measurements in Bark (see Bark col. 6, lines 58-62) in addition to the estimated signal strength for the candidate transmitters in Kennedy, Jr. (see Kennedy, Jr. col. 4, lines 54-55) would allow for improved accuracy in location determining systems.

Regarding claim 15 Kennedy, Jr. and Bark teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 16 Kennedy, Jr. and Bark teach a device as recited in claim 9 and is rejected given the same reasoning as above.

Regarding claim 17 Kennedy, Jr. and Bark teach a device as recited in claim 1 except for obtaining predicted propagation delay for each candidate transmitter in the list, obtaining predicted propagation delay for the identified transmitter, and wherein the transmitter for the received signal is further identified based on predicted propagation delays for the candidate transmitter, predicated propagation delays for the identified transmitter, measured propagation delay for the received signal, and measured propagation delays for the identified transmitter. Kennedy, Jr. does teach obtaining predicted propagation delay for transmitters, wherein the transmitter is further identified based on predicted propagation delays for the candidate transmitter (see col. 4, lines 27-31 & 54-61). Bark teaches evaluating a predetermined condition and measured power for received signals from current and neighboring base stations (see col. 6, lines 58-66 and col. 7, lines 2-4, the predetermined condition relates to predicted power). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include obtaining predicted propagation delay for each candidate transmitter in the list, obtaining predicted propagation delay for the identified transmitter, and wherein the transmitter for the received signal is further identified based on predicted propagation delays for the candidate transmitter, predicated propagation delays for the identified transmitter, measured propagation delay for the received signal, and measured propagation delays for the identified transmitter because this would allow for improved accuracy in location determining systems.

Regarding claim 18 Kennedy, Jr. and Bark teach a device as recited in claim 11 except for determining a relative power delta for each candidate transmitter, determining a relative propagation delay delta for each candidate transmitter, and obtaining a weighted sum of the

relative power delta and the relative propagation delay delta for each candidate transmitter, and wherein the identified transmitter for the received signal is the candidate transmitter with a smallest weighted sum. Kennedy, Jr. does teach determining a propagation delay for each candidate transmitter (see col. 4, lines 27-31 & 54-61). Kennedy, Jr. does teach obtaining a weighted sum of the propagation delay for each candidate transmitter, and identifying a candidate transmitter for a received signal (see col. 4, lines 55-61 and col. 6, lines 13-20). Bark does teach evaluating a measured parameter with a predetermined event or condition (see col. 6, lines 62-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include determining a relative power delta for each candidate transmitter, determining a relative propagation delay delta for each candidate transmitter, and obtaining a weighted sum of the relative power delta and the relative propagation delay delta for each candidate transmitter, and wherein the identified transmitter for the received signal is the candidate transmitter with a smallest weighted sum because this would allow for improved accuracy in location determining systems.

Regarding claim 19 Kennedy, Jr. teaches identifying transmitters in a wireless communication system (see col. 4, lines 58-61). Kennedy, Jr. teaches obtaining a plurality of received signals from a plurality of transmitters (see col. 3, lines 37-41). Kennedy, Jr. teaches determining a list of candidate transmitters for the plurality of received signals (see col. 4, lines 54-56, base stations in the vicinity of the mobile terminal relates to list of candidate transmitters). Kennedy, Jr. teaches obtaining predicted power for each candidate transmitter in the list (see col. 4, lines 54-55, estimates of received signal strength relates to predicted power for each candidate transmitter). Kennedy, Jr. teaches identifying a transmitter for a received signal based on signal

strength predictions for the candidate transmitters (see col. 4, lines 58-61). Kennedy, Jr. does not specifically teach identifying a transmitter based on predicted powers for the transmitters and measured power for the received signal. Bark teaches identifying a base station in a cell based on a predetermined condition and measured power for a received signal (see col. 6, lines 58-66 and col. 7, lines 2-4, the predetermined condition relates to predicted power). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include identifying a transmitter based on predicted powers and measured power for the received signal because identifying the transmitter in Kennedy, Jr. using the received signal strength measurements in Bark (see Bark col. 6, lines 58-62) in addition to the estimated signal strength for the candidate transmitters in Kennedy, Jr. (see Kennedy, Jr. col. 4, lines 54-55) would allow for improved accuracy in location determining systems.

Regarding claim 20 Kennedy, Jr. and Bark teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 21 Kennedy, Jr. and Bark teach a device as recited in claim 6 and is rejected given the same reasoning as above.

Regarding claim 22 Kennedy, Jr. and Bark teach a device as recited in claim 7 and is rejected given the same reasoning as above.

Regarding claim 23 Kennedy, Jr. teaches means for storing information used for the path loss prediction model (see col. 4, lines 24-32).

Regarding claim 24 Kennedy, Jr. teaches obtaining predicted power for an identified transmitter for each received signal, and wherein the identified transmitter for each received signal is further identified based on the predicted power for the identified transmitter for the

received signal (see col. 3, lines 37-41 and col. 4, lines 54-61, estimates of received signal strength relates to predicted power).

Regarding claim 25 Kennedy, Jr. and Bark teach a device as recited in claim 11 and is rejected given the same reasoning as above.

Regarding claim 26 Kennedy, Jr. and Bark teach a device as recited in claim 9 and is rejected given the same reasoning as above.

Regarding claim 27 Kennedy, Jr. teaches a method for identifying transmitters in a wireless communication system (see col. 4, lines 58-61). Kennedy, Jr. teaches obtaining a plurality of received signals from a plurality of transmitters (see col. 3, lines 37-41). Kennedy, Jr. teaches determining a transmitter for each received signal (see col. 4, lines 54-61 and FIG. 2). Kennedy, Jr. teaches determining a list of candidate transmitters for the received signal (see col. 4, lines 54-56, base stations in the vicinity of the mobile terminal relates to list of candidate transmitters). Kennedy, Jr. teaches obtaining predicted power for each candidate transmitter in the list (see col. 4, lines 54-55, estimates of received signal strength relates to predicted power for each candidate transmitter). Kennedy, Jr. teaches identifying a transmitter for a received signal based on signal strength predictions for the candidate transmitters (see col. 4, lines 58-61). Kennedy, Jr. does not specifically teach a computer program product for identifying a transmitter based on predicted powers for the transmitters and measured power for the received signal. Bark teaches a computer program product (see col. 8, lines 31-34) for identifying a base station in a cell based on a predetermined condition and measured power for a received signal (see col. 6, lines 58-66 and col. 7, lines 2-4, the predetermined condition relates to predicted power). It would have been obvious to one of ordinary skill in the art at the time the invention was made to

make the device adapt to include a computer program product for identifying a transmitter based on predicted powers for the transmitters and measured power for the received signal because identifying the transmitter in Kennedy, Jr. using the received signal strength measurements in Bark (see Bark col. 6, lines 58-62) in addition to the estimated signal strength for the candidate transmitters in Kennedy, Jr. (see Kennedy, Jr. col. 4, lines 54-55) would allow for improved accuracy in location determining systems.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy, Jr. et al. (6,920,329 B2) in view of Bark et al. (US 6,445,917 B1) and Remy (US 2002/0039905 A1).

Regarding claim 4 Kennedy, Jr. and Bark teach a device as recited in claim 3 except for predicted power for each transmitter that is obtained for a centroid of the coverage zone. Kennedy, Jr. does teach predicted power for transmitters that is obtained for a coverage zone (see col. 4, lines 32-42). Remy teaches a centroid of the coverage zone (see paragraph [0022]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include predicted power for each transmitter that is obtained for a centroid of the coverage zone because this would allow for improved accuracy in location determining systems.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 27 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A computer-usable medium for storing code is directed to non-statutory subject matter.

Response to Arguments

Applicant's arguments filed 11/20/2006 have been fully considered but they are not persuasive.

Regarding independent claims 1, 13, 19, and 27 the combination of Kennedy, Jr. in view of Bark teaches a device as claimed.

Kennedy, Jr. teaches determining a transmitter for each received signal including determining the identity of a transmitter (see col. 4, lines 54-61 and FIG. 2).

Kennedy, Jr. teaches obtaining estimated power for each candidate transmitter in the list (see col. 4, lines 54-55, estimates of received signal strength for each of the base stations relates to predicted power for each candidate transmitter).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., received signals from a plurality of base stations and determining position location) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shioda et al. U.S Patent No. 6,853,847 B2 discloses a method and apparatus for positioning a mobile station.

Ravi et al. U.S. Patent No. 6,560,462 B1 discloses a system and method for determining the location of a mobile station in a wireless network.

Ogino et al. U.S. Patent No. 6,865,394 B2 discloses a location detection method, location detection system and location detection program.

Reed et al. U.S. Patent No. 6,161,018 discloses a method and system for estimating a subscriber's location in a wireless communication system service area.

Chang et al. U.S. Patent No. 6,263,208 B1 discloses geolocation estimation method for CDMA terminals based on pilot strength measurements.

Messier et al. U.S. Patent No. 6,246,861 B1 discloses cellular telephone location system.

Hall et al. U.S. Patent No. 6,424,837 B1 discloses automated testing for cellular telephone system including emergency positioning.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 24, 2007

GEORGE ENG
SUPERVISORY PATENT EXAMINER